

In the claims:

Please amend the claims as follows:

1. (Currently Amended) A substantially pure polypeptide comprising an amino acid sequence at least ~~60%~~ 90% identical to SEQ ID NO:2, wherein the polypeptide induces differentiation of an osteocyte.

2-4. (Canceled)

5. (Original) A substantially pure polypeptide comprising SEQ ID NO:2.

6. (Currently Amended) ~~The polypeptide of claim 5, wherein the polypeptide comprises~~ A substantially pure polypeptide comprising SEQ ID NO:1.

7. (Original) A substantially pure polypeptide comprising the amino acid sequence of SEQ ID NO:2 containing up to 30 conservative amino acid substitutions, wherein the polypeptide induces differentiation of an osteocyte.

8. (Currently Amended) A substantially pure polypeptide encoded by a first nucleic acid that hybridizes under stringent conditions (0.2 X SSC and 0.1% SDS at 68°C) to a second nucleic acid consisting of SEQ ID NO:3, wherein the polypeptide induces differentiation of an osteocyte.

9-27. (Canceled)

28-40. (Withdrawn)

41. (New) The polypeptide of claim 7, wherein the amino acid sequence contains up to 15 conservative amino acid substitutions.

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42. (New) The polypeptide of claim 7, wherein the amino acid sequence contains up to 5 conservative amino acid substitutions.

43. (New) The polypeptide of claim 7, wherein the amino acid sequence contains up to 3 conservative amino acid substitutions.

44. (New) The polypeptide of claim 1, wherein the amino acid sequence is at least 95% identical to SEQ ID NO:2.

45. (New) The polypeptide of claim 1, wherein the amino acid sequence is at least 99% identical to SEQ ID NO:2.

46. (New) A substantially pure polypeptide consisting of the sequence of SEQ ID NO:1.

47. (New) A substantially pure polypeptide consisting of the sequence of SEQ ID NO:2.

48. (New) A method of screening for a compound that binds to a polypeptide, the method comprising:

providing the polypeptide of claim 1;  
contacting a test compound with the polypeptide; and  
determining whether the test compound has bound to the polypeptide.

49. (New) A method of screening for a compound that binds to a polypeptide, the method comprising:

providing the polypeptide of claim 5;  
contacting a test compound with the polypeptide; and  
determining whether the test compound has bound to the polypeptide.

50. (New) A method of screening for a compound that binds to a polypeptide, the method comprising:

providing the polypeptide of claim 6;  
contacting a test compound with the polypeptide; and  
determining whether the test compound has bound to the polypeptide.

51. (New) A method of screening for a compound that binds to a polypeptide, the method comprising:

providing the polypeptide of claim 7;  
contacting a test compound with the polypeptide; and  
determining whether the test compound has bound to the polypeptide.

52. (New) A method of screening for a compound that binds to a polypeptide, the method comprising:

providing the polypeptide of claim 8;  
contacting a test compound with the polypeptide; and  
determining whether the test compound has bound to the polypeptide.

53. (New) A method of screening for a compound that induces osteocyte differentiation, the method comprising:

providing the polypeptide of claim 1;  
contacting a test compound with the polypeptide; and  
selecting a test compound that increases the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

54. (New) A method of screening for a compound that induces osteocyte differentiation, the method comprising:

providing the polypeptide of claim 5;  
contacting a test compound with the polypeptide; and

selecting a test compound that increases the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

55. (New) A method of screening for a compound that induces osteocyte differentiation, the method comprising:

providing the polypeptide of claim 6;

contacting a test compound with the polypeptide; and

selecting a test compound that increases the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

56. (New) A method of screening for a compound that induces osteocyte differentiation, the method comprising:

providing the polypeptide of claim 7;

contacting a test compound with the polypeptide; and

selecting a test compound that increases the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

57. (New) A method of screening for a compound that induces osteocyte differentiation, the method comprising:

providing the polypeptide of claim 8;

contacting a test compound with the polypeptide; and

selecting a test compound that increases the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

58. (New) A method of screening for a compound that inhibits osteocyte differentiation, the method comprising:

providing the polypeptide of claim 1;  
contacting a test compound with the polypeptide; and  
selecting a test compound that reduces the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

59. (New) A method of screening for a compound that inhibits osteocyte differentiation, the method comprising:

providing the polypeptide of claim 5;  
contacting a test compound with the polypeptide; and  
selecting a test compound that reduces the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

60. (New) A method of screening for a compound that inhibits osteocyte differentiation, the method comprising:

providing the polypeptide of claim 6;  
contacting a test compound with the polypeptide; and  
selecting a test compound that reduces the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

61. (New) A method of screening for a compound that inhibits osteocyte differentiation, the method comprising:

providing the polypeptide of claim 7;  
contacting a test compound with the polypeptide; and  
selecting a test compound that reduces the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

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62. (New) A method of screening for a compound that inhibits osteocyte differentiation, the method comprising:  
providing the polypeptide of claim 8;  
contacting a test compound with the polypeptide; and  
selecting a test compound that reduces the ability of the polypeptide to induce osteocyte differentiation compared to the ability of the polypeptide to induce osteocyte differentiation in the absence of the test compound.

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